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REMARKS***Status of the Claims***

In the response to the previous Office Action, claim 12 was canceled but reproduced in full. This apparently led to some confusion in the pending Office Action, Paper No. 16, in which that the Examiner identified claim 12 as pending and rejected the claim as being unpatentable. To clarify the status of the claims, a clean copy of the claims is attached. No amendments have been made. Claims 4, 6, 7, 11 and 13-15 are pending.

The pending independent apparatus claim, claim 4, describes a cushioning conversion machine with a severing assembly that has a shutter that is movable with a moving blade to substantially block a path of a strip of dunnage when the moving blade is in an extended position. The shutter has an upstream surface that is flush with an upstream surface of the moving blade. The upstream surface of the shutter is positioned to engage a downstream end of the strip when the moving blade is in its extended position.

Rejections under 35 U.S.C. § 103

Claims 4, 6, 7, 11 and 13-15 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,569,146 to Simmons ("Simmons") in view of either U.S. Patent No. 5,213,867 to Huston, Sr. et al. ("Huston") or newly cited U.S. Patent No. 5,943,844 to Wilhelm et al. ("Wilhelm").

Simmons

The primary reference, Simmons, discloses a cushioning conversion machine 20 with a cutting/aligning assembly 56 that includes a moving blade 72 and an automatic alignment device 80 that automatically aligns a cut section of dunnage P with an outlet opening 48 when the moving blade moves from an extended position (Fig. 4) to a rest position (Fig. 3).

As discussed in the specification of the present application, when such a moving blade moves to its extended position at the end of a cut (as shown in FIG. 4 of Simmons, for example), the leading cut end can move behind the cutting blade. Such movement of the cut end of the dunnage strip can occur due to the nature of a strip of

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dunnage, e.g., from relaxation of the crumpled strip along its longitudinal axis. (See p. 11, line 23 through p. 12, line 7.) This movement of the leading cut end led to the problem addressed by the present invention, namely interference with the return stroke of the moving blade by the leading cut end of the strip of dunnage when the moving blade is in its extended position.

The shutter provided by the claimed invention is movable with the moving blade for substantially blocking the path of the strip when the moving blade is in its extended position. The shutter has an upstream surface that is flush with an upstream surface of the moving blade, and this surface of the shutter is positioned to engage a downstream end of the strip when the moving blade is in its extended position. Thus, the shutter keeps the stock material from interfering with the return stroke of the moving blade, thereby preventing jamming caused by the strip interfering with the return movement of the blade.

Simmons fails to disclose the claimed shutter or the problem that the shutter addresses.

Huston

In contrast to the cushioning conversion machine disclosed in Simmons, interference with the return stroke of a moving blade does not appear to be a problem in the Huston device. Huston discloses a forming tool 32 that cuts and crimps a flat tube 10B. The forming tool 32 includes a pair of opposed heads 32a/32b that clamp the tube therebetween, and a knife 40 carried by an end of a plunger shaft 37 within the head 32b. The plunger extends the knife into an aligned passage in the head 32a to cut the flat tube.

Since the cut ends of the flat tube 10B are clamped on both sides of the knife 40 and, unlike the crumpled strip of dunnage disclosed in Simmons, the cut ends of the flat tube do not longitudinally relax and extend beyond the positions they are in when cut, interference from the cut ends of the flat tube is not a problem for Huston. Therefore, a person of ordinary skill in the art would not apply the teachings of Huston to Simmons to address this problem.

Besides, unlike the invention set forth in claim 4, neither the shaft 37 nor the heads 32a/32b of the forming tool 32 disclosed in Huston provide a surface that is flush with the surface of the knife 40. When the knife is in its extended position, there is no

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flush surface that blocks the path of the material being cut. Consequently, even if a person of ordinary skill in the art combined the teachings of Simmons and Huston, such a person still would not arrive at the claimed invention.

Wilhelm

Like Huston, interference with the return stroke of a moving blade does not appear to be a problem in Wilhelm. Wilhelm discloses a machine for packaging food by applying a film sheet to a preformed food tray. Wilhelm heat seals the film sheet to the tray and then cuts the film with a knife having a shape that corresponds to the perimeter of the tray. Also like Huston, Wilhelm clamps the film sheet 20 with inner and outer clamps 74 and 78 that lie on respective sides of the knife 64. The inner clamp heat seals the film sheet to the tray 16 and the knife 64 cuts the film sheet 20 about the periphery. Wilhelm uses heat to shrink the edges of the cut film away from the knife 64. (See Wilhelm, col. 4, line 56 through col 5, line 42.)

As with Huston, because Wilhelm clamps the film sheet 20 on both sides of the knife 64, and because Wilhelm's film sheet 20 is flat and does not lengthen toward the knife when cut, interference with the return stroke of the knife is not an issue. While the knife 64 has a surface that extends past the path of the film sheet, that film sheet is clamped and cannot move to interfere with the knife. In fact, Wilhelm uses heat to shrink the cut ends of the film sheet away from the knife. Thus no interference with the return stroke of the knife set is possible. Consequently, a person of ordinary skill in the art would not combine the teachings of Wilhelm with the teachings of Simmons to address the problem of interference with the return stroke of a moving blade.

The Examiner disagreed with this position in the Office Action. However, with respect to the Examiner's asserted motivation for the proposed combination, i.e., "to make sure nothing interferes with the cutting blade" (Paper No. 16, p. 2), no commentary has been found in any of the applied references that this is a problem that is addressed by the secondary references. Consequently, the Examiner's foundation for the alleged motivation does not arise from the applied prior art, but can only come from the present specification.

Withdrawal of the rejection is respectfully requested.

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In view of the foregoing, the present application is believed to be in condition for allowance.

Respectfully submitted,

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Amendments to the Claims

Claims 1-3 (Canceled).

4. (Previously Presented) A cushioning conversion machine for converting sheet stock material into a cushioning dunnage product, comprising

- a stock supply assembly which supplies stock material to be converted,
- a conversion assembly which draws the stock material from the stock supply and converts the stock material into a strip of cushioning, and
- a severing assembly for severing the strip of cushioning to form a pad,

the severing assembly including

- a moving blade mounted for movement across a strip path between a retracted position and an extended position for cutting the strip, and
- a shutter movable with the moving blade for substantially blocking the strip path when the moving blade is in its extended position, wherein the shutter has an upstream surface flush with an upstream surface of the moving blade, and the upstream surface of the shutter is positioned to engage a downstream end of the strip when the moving blade is in its extended position.

Claim 5 (Canceled).

6. (Original) A conversion machine as set forth in claim 4, wherein the shutter and moving blade are both mounted to a blade holder.

7. (Original) A conversion machine as set forth in claim 6, wherein the blade holder is mounted for swinging movement relative to another blade that coacts with the moving blade to cut the strip.

Claims 8-10 (Cancelled).

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11. (Previously Presented) A conversion method for converting sheet stock material into a cushioning dunnage product, comprising drawing sheet stock material from a stock supply, converting the stock material into a strip of cushioning, and cutting the strip of cushioning using a moving blade to cut the strip of cushioning across a strip path between a retracted position and an extended position, wherein a shutter is moved in trailing relation to the moving blade wherein an upstream surface of the shutter is flush with an upstream surface of the moving blade and the upstream surface of the shutter smoothly slides along a downstream end of the strip of cushioning and engages the downstream end of the strip when the moving blade is in its extended position, for substantially blocking the strip path when the moving blade is in its extended position, thereby to prevent movement of a cut end of the strip from moving behind the moving blade as the moving blade slices through the strip of cushioning.

Claim 12 (Cancelled).

13. (Previously Presented) A conversion machine as set forth in claim 4, wherein the moving blade and shutter are separate components having common movement.

14. (Previously Presented) A conversion machine as set forth in claim 4, further including a second blade with which the moving blade coacts to sever the strip of cushioning.

15. (Previously Presented) A conversion machine as set forth in claim 14, wherein the second blade is a stationary blade.